

## 6. Krishna

**Program Name:** Krishna.java

**Input File:** krishna.dat

Krishna is intrigued by a song she heard on the radio during December.

Taking the words to the song literally:

On the first day, 1 gift was given. (1)  
On the second day, 3 gifts were given (1+2)  
On the third day, 6 gifts were given. (1+2+3)  
On the fourth day, 10 gifts were given. (1+2+3+4)  
On the fifth day, 15 gifts were given. (1+2+3+4+5)

So, if Krishna wanted to know how many gifts were received from Day #3 to Day #5, the answer would be a total of 31 gifts (6+10+15).

Help Krishna write a program to allow her to input two integers A and B representing two different days in the song. The output should be the total number of gifts received from the Day #A to Day #B.

**Input:** Input will consist of an integer N, the number of test cases. The number of test cases will be in range [1,20]. Each subsequent line will contain two integers A and B representing two different days, both in the range [1,100] where  $A \leq B$ .

**Output:** Each line of output will consist of one integer representing the number of gifts received from Day #A to Day #B.

**Sample input:**

```
5
1 3
1 5
1 12
4 6
10 20
```

**Sample output:**

```
10
35
364
46
1375
```